REMARKS

Claims 1-6, 8-17 and 19-43 were pending in the application prior to the current response. Claims 31, 34, 35, 37 and 40 have been amended herein. Claims 1-30, 32 and 36 have been canceled. Claims 33, 38, 39 and 41-43 remain in the application unchanged by this response. Accordingly, after entry of the amendment presented herein, claims 31, 33-35 and 37-43 will be pending. Re-examination and reconsideration are requested.

I. Rejection of Claims 15-21 Under 35 U.S.C. §112, First Paragraph

Claims 15-21 stand rejected under 35 U.S.C. §112, first paragraph, as being directed to a single means claim and, thus, being of undue breadth.

Claims 15-21 have been canceled herein.

II. Rejection of Claim 40 Under 35 U.S.C. §112, Second Paragraph

Claim 40 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Reconsideration of the Examiner's rejection is respectfully requested.

The Examiner objects to the use of the term "RLE" in claim 40. In response, applicants have amended claim 40 herein to now read as follows:

> The method of claim 39, wherein the one bit per pixel monochrome bitmap is further compressed using a run length encoding ~~an RLE~~ compression method.

(revision marks added)

Thus, claim 40 has been amended to now specify "run length encoding" in place of the abbreviation "RLE". No new matter has been added; the amendment to claim 40 is fully supported by applicants' originally-filed application with reference, for example, to originally-filed claims 13, 21 and 25 and to the written specification, for example as follows:

> Once the image has been decolorized and converted into a one-bit-per-pixel bitmap 130 and associated list 80, the bitmap 130 may optionally be further compressed by other efficient techniques applicable to monochrome images, such as run length encoding (RLE) . With RLE, the present invention can easily yield 20:1 compression relative to the original textured image.
>
> (page 10, line 32 - page 11, line 3)

In view of the above, the Examiner's rejection of claim 40 under 35 U.S.C. §112, second paragraph is believed to be addressed.

III. Rejection of Claims 1-14, 22-33 and 35-43 Under 35 U.S.C. §101

Claims 1-14, 22-33 and 35-43 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Reconsideration of the Examiner's rejection is respectfully requested.

Claims 1-14 and 22-30 have been canceled herein.

Claims 31 and 32

Applicants' independent claim 31, as amended herein, recites the following:

> A method comprising:
>
> displaying a digital image having at least three textures whose amount of storage space required for holding it prior to a time when the image is to be displayed has been reduced, comprising:

providing a bitmap representing only boundary pixels in said image separating regions, said regions comprising image pixels of said image, each region between boundary pixels being composed of one of the textures;

referencing a pointer that associates one of said textures with one of said regions;

filling said one of said regions in said bitmap with said associated one of said textures;

overlaying said image on a background; and

wherein said providing, referencing, filling, and overlaying are repeated for a succession of images to create the illusion of motion.

As discussed in further detail later in this response, claim 31 has been amended herein to generally incorporate the limitations of prior dependent claim 32; claim 32 has been canceled.

The Examiner explains the current rejection on pages 2-3 of the Office action, for example, as follows:

> Claims 1-14, 22-33, and 35-43 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent and recent Federal Circuit decisions indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. **The method including steps of generating, storing, providing, and**

> **decolorizing is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine**. The Applicant has provided no explicit and deliberate definitions of "generating", "storing", "providing" or "decolorizing" to limit the steps to the electronic form.
>
> (emphasis added)

Thus, the Examiner appears to take the position that the claims in question recite only a series of steps that could be "completely performed mentally, verbally or without a machine" (Office action, page 3, as quoted above). Applicants respectfully point out, however, that claim 31 recites, for example:

> displaying a digital image having at least three textures whose amount of storage space required for holding it prior to a time when the image is to be displayed has been reduced ...

Clearly, a step of *displaying a digital image,* as recited in claim 31, could not be performed mentally, verbally or without a machine. Accordingly, applicants respectfully assert that the instant rejection of claim 31 is improper and that claim 31 is in condition for allowance. Claim 32, as noted above, has been canceled herein.

Claim 33

Applicants' claim 33 recites the following:

> A method comprising:

displaying a digital image having at least three textures whose amount of storage space required for holding it prior to a time when the image is to be displayed is reduced, comprising:

generating a bitmap representing only boundary pixels in said image separating digital image regions in said image, said regions comprising image pixels of said image, each region between boundary pixels being composed of one of the textures;

generating a pointer for each of said regions, each of said pointers associating its respective region with the one of said textures for the digital image in such region;

storing the bitmap of boundary pixels and the pointers defining the textures for the regions between boundary pixels for later use in displaying the image;

referencing said pointers associating said one of said textures with said one of said regions;

filling said regions in said map with its associated one of said textures; and

overlaying said image on a background.

Applicants' independent claim 33 recites, for example, the following:

displaying a digital image having at least three textures whose amount of storage space required for holding it prior to a time when the image is to be displayed is reduced, comprising:

Accordingly, claim 33 is believed to be in condition for allowance for at least the

same reasons as advanced above with respect to independent claim 31.

Claims 35-43

Applicants' independent claim 35, as amended herein, recites the following:

A method of producing a digital image for efficient compression, the digital image being made up of a plurality of textures, the method comprising:

defining a texture palette, wherein each possible texture of the digital image is assigned a unique code;

generating a bitmap of the digital image, wherein the bitmap comprises:

pixels of one code representing boundaries of the digital image; and

pixels of different codes representing textures of the digital image;

decolorizing the bitmap of the digital image into a monochrome bitmap made up of only two pixel values, one pixel value representing the boundaries of the digital image;

wherein said decolorizing further comprises:

- creating a list relating textures to locations in the bitmap;
- retrieving each pixel of the bitmap, wherein said retrieval comprises:
  - skipping over each pixel which represents the boundaries of the digital image; and
  - adding each pixel of the bitmap which is not a predetermined texture to the list, including the location of the pixel; and
- changing the pixel and like adjacent pixels to one of the

predetermined textures.

As discussed in further detail later in this response, claim 35 has been amended herein to generally incorporate the limitations of prior dependent claim 36; claim 36 has been canceled.

Applicants' independent claim 35 recites, for example, the following:

> A method of producing a digital image for efficient compression, the digital image being made up of a plurality of textures, the method comprising:

Accordingly, claim 35 is believed to be in condition for allowance for at least the same reasons as advanced above with respect to independent claim 31. Claims 37-43 are allowable at least as ultimately depending from allowable base claim 35. Claim 36, as noted above, has been canceled herein.

IV. Rejection of Claims 15-21 Under 35 U.S.C. §101

Claims 15-21 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Claims 15-21 have been canceled herein.

V. Rejection of Claims 1-31, 33-35 and 38-43 Under 35 U.S.C. §102(e)

Claims 1-31, 33-35 and 38-43 stand rejected under 35 U.S.C. §102(e) as being anticipated by Harrington et al. (U.S. Patent No. 5,644,406). Reconsideration of the Examiner's rejection is respectfully requested.

Claims 1-30 have been canceled herein.

Claim 31

Applicants' independent claim 31, as amended herein, recites the following:

A method comprising:

displaying a digital image having at least three textures whose amount of storage space required for holding it prior to a time when the image is to be displayed has been reduced, comprising:

providing a bitmap representing only boundary pixels in said image separating regions, said regions comprising image pixels of said image, each region between boundary pixels being composed of one of the textures;

referencing a pointer that associates one of said textures with one of said regions;

filling said one of said regions in said bitmap with said associated one of said textures; ~~and~~

overlaying said image on a ~~background~~ background; and

wherein said providing, referencing, filling, and overlaying are repeated for a succession of images to create the illusion of motion.

(revision marks added)

As noted previously, independent claim 31 has been amended herein to generally include the language of dependent claim 32, as indicated above. Claim 32 has been canceled. No new matter has been added.

Since the Examiner has not rejected dependent claim 32 as being anticipated by Harrington et al., the inclusion in independent claim 31, of the language previously generally appearing in dependent claim 32, as discussed above, is believed to overcome the instant rejection of independent claim 31. Accordingly, applicants respectfully assert that independent claim 31, as amended herein, is in condition for allowance.

Claim 33

Applicants' independent claim 33 recites the following:

A method comprising:

displaying a digital image having at least three textures whose amount of storage space required for holding it prior to a time when the image is to be displayed is reduced, comprising:

generating a bitmap representing only boundary pixels in said image separating digital image regions in said image, said regions comprising image pixels of said image, each region between boundary pixels being composed of

one of the textures;

generating a pointer for each of said regions, each of said pointers associating its respective region with the one of said textures for the digital image in such region;

storing the bitmap of boundary pixels and the pointers defining the textures for the regions between boundary pixels for later use in displaying the image;

referencing said pointers associating said one of said textures with said one of said regions;

filling said regions in said map with its associated one of said textures; and

overlaying said image on a background.

Applicants' claim 33 recites, for example, the following:

overlaying said image on a background.

Applicants respectfully assert that this limitation is not disclosed by Harrington et al. The Examiner explains the current rejection on pages 11-12 of the Office action, for example, as follows:

As to claim 33, Harrington teaches a method comprising: displaying a digital image having at least three textures whose amount of storage space required for holding it prior to a time when the image is to be displayed is reduced, comprising: generating a bitmap representing only boundary pixels in the image *separating digital image regions in the image, the regions comprising image pixels of the image, each region between boundary pixels being composed of one of the textures (color A, color B, and color X in figure 12*; Note:

> specification page 2, lines 20-22 discloses that the at least three textures are colors or patterns), generating a pointer for each of the regions, each of the pointers associating its respective region with the one of the textures for the digital image in such storing the bitmap of boundary, pixels and the pointers defining the textures for the regions between boundary pixels for later use in displaying the image, referencing the pointers associating the one of the textures with the one of the regions (figures 10, 11, and 13); filling the regions in the map with its associated one of the textures (column 11, lines 57-63); and **overlaying the image on a background (color A in figure 12 is a background and color X is the border color and color B is an object's interior color taught at column 8, lines 11-13)**.
>
> (emphasis added)

Thus, the Examiner takes the position, with reference to the bold type above, that applicants' recited "overlaying said image on a background" is met by Harrington et al. because the Harrington et al. "color A" can be considered to be a background and the colors "X" and "B" can be considered to be an image overlaid thereon. As pointed out previously by the Examiner, however (see the italicized type above), the colors "A", "X" and "B" are all a *part of the image itself*. Applicants' claim 33, however, requires an image and *a separate background* upon which the image is overlaid. Accordingly, the limitations of applicants' claim 33 cannot reasonably be read on the disclosure of Harrington et al.

Since Harrington et al. does not disclose all of the elements of applicants' claim 33, claim 33 is not anticipated by Harrington et al. The standard for lack of novelty, that is, for "anticipation," under 35 U.S.C. §102 is one of strict identity. To anticipate a claim for a patent, a single prior source must contain all its essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986).

Applicants respectfully assert, for at least the reasons advanced above, that independent claim 33 is in condition for allowance.

Claim 34

Applicants' independent claim 34, as amended herein, recites the following:

Apparatus comprising:

a microprocessor;

a memory coupled to the microprocessor, the memory being configured to cause the microprocessor to:

display ~~compress~~ a digital image having at least three textures ~~to reduce the amount of storage space required for holding it prior to a time when the image is to be displayed~~, by:

a) generating a bitmap representing only boundary pixels in said image separating regions in said image, said regions comprising image pixels of said image, each region between boundary pixels being composed of one of the textures;

b) generating a pointer for each of said regions, each of said pointers associating its respective region with the one of said textures for the image in such region; ~~and~~

c) storing the bitmap of boundary pixels and the pointers defining the textures for the regions between boundary pixels in said memory ~~a memory coupled to the microprocessor for later use in displaying the image~~;

d) referencing said pointers associating said one of said textures with said one of said regions;

e) filling each of said regions in said bitmap with its associated one of said textures; and

f) overlaying said image on a background.

(revision marks added)

Claim 34 has been amended herein, as indicated above. The amendments to claim 34 are fully supported by the application as originally filed with reference, for example, to originally-filed claim 33. No new matter has been added.

Claim 34, as amended herein, recites, for example, the following:

f) overlaying said image on a background.

Accordingly, claim 34 is believed to be in condition for allowance for at least the same reasons as advanced above with respect to independent claim 33.

Claims 35 and 38-43

Applicants' independent claim 35, as amended herein, recites the following:

A method of producing a digital image for efficient compression, the digital image being made up of a plurality of textures, the method comprising:

defining a texture palette, wherein each possible texture of the digital image is assigned a unique code;

generating a bitmap of the digital image, wherein the bitmap comprises:

pixels of one code representing boundaries of the digital image; and

pixels of different codes representing textures of the digital image;

~~and~~

decolorizing the bitmap of the digital image into a monochrome bitmap made up of only two pixel values, one pixel value representing the boundaries of the digital ~~image~~ image;

wherein said decolorizing further comprises:

- creating a list relating textures to locations in the bitmap;
- retrieving each pixel of the bitmap, wherein said retrieval comprises:
  - skipping over each pixel which represents the boundaries of the digital image; and
  - adding each pixel of the bitmap which is not a predetermined texture to the list, including the location of the pixel; and
- changing the pixel and like adjacent pixels to one of the predetermined textures.

(revision marks added)

As noted previously, independent claim 35 has been amended herein to generally include the language of dependent claim 36, as indicated above. Claim 36 has been canceled. Claim 37 has been amended herein to depend from independent claim 35, rather than from canceled claim 36. No new matter has been added.

Since the Examiner has not rejected claim 36 as being anticipated by Harrington

et al., the inclusion in independent claim 35, of the language previously generally appearing in dependent claim 36, as discussed above, is believed to overcome the instant rejection of independent claim 35. Accordingly, applicants respectfully assert that claim 35, as amended herein, is in condition for allowance. Claims 38-43 are allowable at least as ultimately depending from allowable base claim 35.

For at least the foregoing reasons, applicants respectfully assert that all of the pending claims are in condition for allowance.

Respectfully submitted,

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